Patrick C A Van Der Wel

List of Publications by Year
in descending order

64 papers	4,638 citations	117625 34 h-index	118850 62 g-index
83 all docs	83 docs citations	83 times ranked	4408 citing authors

#	Article	IF	Citations
1	Dynamic nuclear polarization at high magnetic fields. Journal of Chemical Physics, 2008, 128, 052211.	3.0	734
2	High-Field Dynamic Nuclear Polarization for Solid and Solution Biological NMR. Applied Magnetic Resonance, 2008, 34, 237-263.	1.2	296
3	Dynamic Nuclear Polarization of Amyloidogenic Peptide Nanocrystals:Â GNNQQNY, a Core Segment of the Yeast Prion Protein Sup35p. Journal of the American Chemical Society, 2006, 128, 10840-10846.	13.7	255
4	Solid-State NMR Study of Amyloid Nanocrystals and Fibrils Formed by the Peptide GNNQQNY from Yeast Prion Protein Sup35p. Journal of the American Chemical Society, 2007, 129, 5117-5130.	13.7	177
5	Tilt Angles of Transmembrane Model Peptides in Oriented and Non-Oriented Lipid Bilayers as Determined by 2H Solid-State NMR. Biophysical Journal, 2004, 86, 3709-3721.	0.5	172
6	Geometry and Intrinsic Tilt of a Tryptophan-Anchored Transmembrane Î±-Helix Determined by 2H NMR. Biophysical Journal, 2002, 83, 1479-1488.	0.5	161
7	The Aggregation-Enhancing Huntingtin N-Terminus Is Helical in Amyloid Fibrils. Journal of the American Chemical Society, 2011, 133, 4558-4566.	13.7	158
8	Huntingtin exon 1 fibrils feature an interdigitated Î²-hairpinâ€"based polyglutamine core. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 1546-1551.	7.1	143
9	Peptide-Directed Assembly of Single-Helical Gold Nanoparticle Superstructures Exhibiting Intense Chiroptical Activity. Journal of the American Chemical Society, 2016, 138, 13655-13663.	13.7	141
10	Hydrophobic Mismatch between Helices and Lipid Bilayers. Biophysical Journal, 2003, 84, 379-385.	0.5	135
11	Dynamic nuclear polarization-enhanced solid-state NMR spectroscopy of GNNQQNY nanocrystals and amyloid fibrils. Physical Chemistry Chemical Physics, 2010, 12, 5911.	2.8	114
12	Cryogenic sample exchange NMR probe for magic angle spinning dynamic nuclear polarization. Journal of Magnetic Resonance, 2009, 198, 261-270.	2.1	108
13	Lipid Dependence of Membrane Anchoring Properties and Snorkeling Behavior of Aromatic and Charged Residues in Transmembrane Peptidesâ€. Biochemistry, 2002, 41, 7190-7198.	2.5	106
14	Î²-Hairpin-Mediated Nucleation of Polyglutamine Amyloid Formation. Journal of Molecular Biology, 2013, 425, 1183-1197.	4.2	91
15	Structural Complexity of a Composite Amyloid Fibril. Journal of the American Chemical Society, 2011, 133, 14686-14698.	13.7	88
16	Fibril polymorphism affects immobilized non-amyloid flanking domains of huntingtin exon1 rather than its polyglutamine core. Nature Communications, 2017, 8, 15462.	12.8	81
17	Complexes obtained by electrophilic attack on a dinitrogen-derived terminal molybdenum nitride: electronic structure analysis by solid state CP/MAS 15N NMR in combination with DFT calculations. Polyhedron, 2004, 23, 2751-2768.	2.2	80
18	Observation of a Low-Temperature, Dynamically Driven Structural Transition in a Polypeptide by Solid-State NMR Spectroscopy. Journal of the American Chemical Society, 2009, 131, 118-128.	13.7	79

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19	Serine Phosphorylation Suppresses Huntingtin Amyloid Accumulation by Altering Protein Aggregation Properties. Journal of Molecular Biology, 2012, 424, 1-14.	4.2	76
20	Structural Changes and Proapoptotic Peroxidase Activity of Cardiolipin-Bound Mitochondrial Cytochrome c. Biophysical Journal, 2015, 109, 1873-1884.	0.5	75
21	Polyglutamine Amyloid Core Boundaries and Flanking Domain Dynamics in Huntingtin Fragment Fibrils Determined by Solid-State Nuclear Magnetic Resonance. Biochemistry, 2014, 53, 6653-6666.	2.5	74
22	Structural Characterization of the Caveolin Scaffolding Domain in Association with Cholesterol-Rich Membranes. Biochemistry, 2012, 51, 90-99.	2.5	72
23	Hidden motions and motion-induced invisibility: Dynamics-based spectral editing in solid-state NMR. Methods, 2018, 148, 123-135.	3.8	72
24	Cataract-associated P23T Î³D-crystallin retains a native-like fold in amorphous-looking aggregates formed at physiological pH. Nature Communications, 2017, 8, 15137.	12.8	69
25	Structural Characterization of GNNQQNY Amyloid Fibrils by Magic Angle Spinning NMR. Biochemistry, 2010, 49, 9457-9469.	2.5	66
26	Time Averaging of NMR Chemical Shifts in the MLF Peptide in the Solid State. Journal of the American Chemical Society, 2010, 132, 5993-6000.	13.7	65
27	Lipid Dynamics and Proteinâ€"Lipid Interactions in 2D Crystals Formed with the Î²-Barrel Integral Membrane Protein VDAC1. Journal of the American Chemical Society, 2012, 134, 6375-6387.	13.7	65
28	Tryptophan-Anchored Transmembrane Peptides Promote Formation of Nonlamellar Phases in Phosphatidylethanolamine Model Membranes in a Mismatch-Dependent Mannerâ€. Biochemistry, 2000, 39, 3124-3133.	2.5	58
29	New applications of solid-state NMR in structural biology. Emerging Topics in Life Sciences, 2018, 2, 57-67.	2.6	56
30	Insights into protein misfolding and aggregation enabled by solid-state NMR spectroscopy. Solid State Nuclear Magnetic Resonance, 2017, 88, 1-14.	2.3	50
31	Orientation and Motion of Tryptophan Interfacial Anchors in Membrane-Spanning Peptides. Biochemistry, 2007, 46, 7514-7524.	2.5	48
32	Energetics Underlying Twist Polymorphisms in Amyloid Fibrils. Journal of Physical Chemistry B, 2018, 122, 1081-1091.	2.6	44
33	Use of solid-state NMR spectroscopy for investigating polysaccharide-based hydrogels: A review. Carbohydrate Polymers, 2020, 240, 116276.	10.2	43
34	Helical Distortion in Tryptophan- and Lysine-Anchored Membrane-Spanning Î±-Helices as a Function of Hydrophobic Mismatch: A Solid-State Deuterium NMR Investigation Using the Geometric Analysis of Labeled Alanines Method. Biophysical Journal, 2008, 94, 480-491.	0.5	40
35	On the use of ultracentrifugal devices for routine sample preparation in biomolecular magic-angle-spinning NMR. Journal of Biomolecular NMR, 2017, 67, 165-178.	2.8	38
36	d-Polyglutamine Amyloid Recruits l-Polyglutamine Monomers and Kills Cells. Journal of Molecular Biology, 2014, 426, 816-829.	4.2	36

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37	Protofilament Structure and Supramolecular Polymorphism of Aggregated Mutant Huntingtin Exon 1. Journal of Molecular Biology, 2020, 432, 4722-4744.	4.2	34
38	Multipole-multimode Floquet theory of rotational resonance width experiments: C13â€“C13 distance measurements in uniformly labeled solids. Journal of Chemical Physics, 2006, 124, 214107.	3.0	31
39	NMR identification of a conserved Drp1 cardiolipin-binding motif essential for stress-induced mitochondrial fission. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	31
40	Surface-Binding to Cardiolipin Nanodomains Triggers Cytochrome c Pro-apoptotic Peroxidase Activity via Localized Dynamics. Structure, 2019, 27, 806-815.e4.	3.3	28
41	Conformational studies of pathogenic expanded polyglutamine protein deposits from Huntingtonâ€™s disease. Experimental Biology and Medicine, 2019, 244, 1584-1595.	2.4	27
42	Amyloid-like Fibrils from a Domain-swapping Protein Feature a Parallel, in-Register Conformation without Native-like Interactions. Journal of Biological Chemistry, 2011, 286, 28988-28995.	3.4	26
43	Domain swapping and amyloid fibril conformation. Prion, 2012, 6, 211-216.	1.8	25
44	Combined Experimental/Theoretical Refinement of Indole Ring Geometry Using Deuterium Magnetic Resonance and ab Initio Calculations. Journal of the American Chemical Society, 2003, 125, 12268-12276.	13.7	24
45	Structural Fingerprinting of Protein Aggregates by Dynamic Nuclear Polarization-Enhanced Solid-State NMR at Natural Isotopic Abundance. Journal of the American Chemical Society, 2018, 140, 14576-14580.	13.7	22
46	Backbone Engineering within a Latent Î²-Hairpin Structure to Design Inhibitors of Polyglutamine Amyloid Formation. Journal of Molecular Biology, 2017, 429, 308-323.	4.2	21
47	Methionine oxidized apolipoprotein Aâ€I at the crossroads of HDL biogenesis and amyloid formation. FASEB Journal, 2018, 32, 3149-3165.	0.5	20
48	Regulatory inter-domain interactions influence Hsp70 recruitment to the DnaJB8 chaperone. Nature Communications, 2021, 12, 946.	12.8	20
49	Modulation of membrane structure and function by hydrophobic mismatch between proteins and lipids. Pure and Applied Chemistry, 1998, 70, 75-82.	1.9	20
50	Optimized aminolysis conditions for cleavage of N-protected hydrophobic peptides from solid-phase resins. Chemical Biology and Drug Design, 2001, 57, 519-527.	1.1	19
51	Importance of Tensor Asymmetry for the Analysis of2H NMR Spectra from Deuterated Aromatic Rings. Journal of the American Chemical Society, 2005, 127, 17488-17493.	13.7	19
52	MAS 1 H NMR Probes Freezing Point Depression of Water and Liquid-Gel Phase Transitions in Liposomes. Biophysical Journal, 2016, 111, 1965-1973.	0.5	19
53	Solid-state NMR spectroscopy insights for resolving different water pools in alginate hydrogels. Food Hydrocolloids, 2022, 127, 107500.	10.7	17
54	Structural Dynamics and Tunability for Colloidal Tin Halide Perovskite Nanostructures. Advanced Materials, 2022, 34, e2201353.	21.0	16

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55	Targeted ¹³Câ€“¹³C Distance Measurements in a Microcrystalline Protein via Jâ€Decoupled Rotational Resonance Width Measurements. ChemPhysChem, 2009, 10, 1656-1663.	2.1	11
56	High-resolution solid-state NMR structure of Alanyl-Prolyl-Glycine. Journal of Magnetic Resonance, 2009, 200, 95-100.	2.1	11
57	In support of the BMRB. Nature Structural and Molecular Biology, 2012, 19, 854-860.	8.2	6
58	Activation of Cytochrome C Peroxidase Function Through Coordinated Foldon Loop Dynamics upon Interaction with Anionic Lipids. Journal of Molecular Biology, 2021, 433, 167057.	4.2	5
59	Dihedral Angle Measurements for Structure Determination by Biomolecular Solid-State NMR Spectroscopy. Frontiers in Molecular Biosciences, 2021, 8, 791090.	3.5	4
60	Spinning-rate encoded chemical shift correlations from rotational resonance solid-state NMR experiments. Journal of Magnetic Resonance, 2013, 230, 117-124.	2.1	3
61	How Amyloid Precursor Protein Protects Itself from Cleavage. Structure, 2014, 22, 361-362.	3.3	3
62	Solid-state NMR studies of peripherally membrane-associated proteins: dealing with dynamics, disorder and dilute conditions. , 0, , .		3
63	Structural and Motional Investigations of Polyglutamine-Containing Amyloid Fibrils by Magic-Angle-Spinning Solid-State NMR. Biophysical Journal, 2013, 104, 181a.	0.5	1
64	Peptide Influences on Lipids. Novartis Foundation Symposium, 1999, 225, 170-187.	1.1	0